

# INSTALLATION



## ICS110-CW Series Camclosure®



**Integrated Camera System  
Wide Dynamic Range (WDR)**

**C3406M-D (1/07)**



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# Regulatory Notices

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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## RADIO AND TELEVISION INTERFERENCE

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:


- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You may also find helpful the following booklet, prepared by the FCC: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402.

Changes and modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission's rules.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

 The materials used in the manufacture of this document and its components are compliant to the requirements of Directive 2002/95/EC.



This equipment contains electrical or electronic components that must be recycled properly to comply with Directive 2002/96/EC of the European Union regarding the disposal of waste electrical and electronic equipment (WEEE). Contact your local dealer for procedures for recycling this equipment.

# Description

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The ICS110-CW Series Camclosure® integrated camera system combines an environmental cover, back box, camera, lens, and lower dome into a small, high-security system that is quick and easy to install. The system is perfect for a variety of indoor and outdoor applications and its versatile design allows for multiple mounting options.

The ICS110-CW Series Camclosure integrated camera system can be installed directly to a ceiling, wall, 4S electrical box (using the optional ICS110-AP adapter plate), or a standard plaster ring. The system has three conduit openings: two in the base and a threaded 0.75-inch (1.91 cm) opening in the side.

Before installing your new system, thoroughly familiarize yourself with the information in this manual.

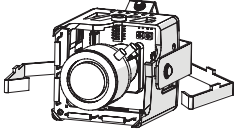
The following is supplied with the ICS110-CW Series Camclosure integrated camera system:

## Qty Description

- |   |  |
|---|--|
| 1 | ICS110-CW Series Camclosure integrated camera system   |
|   | <ul style="list-style-type: none"><li>• Cover and back box (assembled)</li><li>• Trim ring with bubble; clear bubble models include a dome liner</li><li>• Camera module</li></ul> |
| 1 | Black plug   |
| 1 | 1/8-inch hollow screwdriver bit  |
| 2 | 8-32 x 0.375-inch Phillips pan head screws with washers (attached to cover and back box)   |
| 3 | 6-32 x 0.75-inch Phillips pan head screws  |
| 2 | 8-32 x 0.75-inch Phillips flat head screws   |
| 2 | 8-32 x 0.75-inch Phillips pan head screws  |

## MODELS

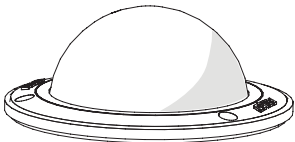
ICS110-CW-V39	Indoor/outdoor dome, vandal resistant, surface mount, smoked bubble, gray finish, 3-9 mm varifocal lens with DC-drive auto iris
ICS111-CW-V39	Indoor/outdoor dome, vandal resistant, surface mount, clear bubble, gray finish, 3-9 mm varifocal lens with DC-drive auto iris



CAMERA MODULE  
(1)

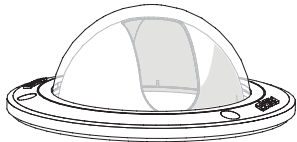


COVER AND  
BACK BOX (1)



TRIM RING AND  
SMOKED BUBBLE  
(1)

< OR >



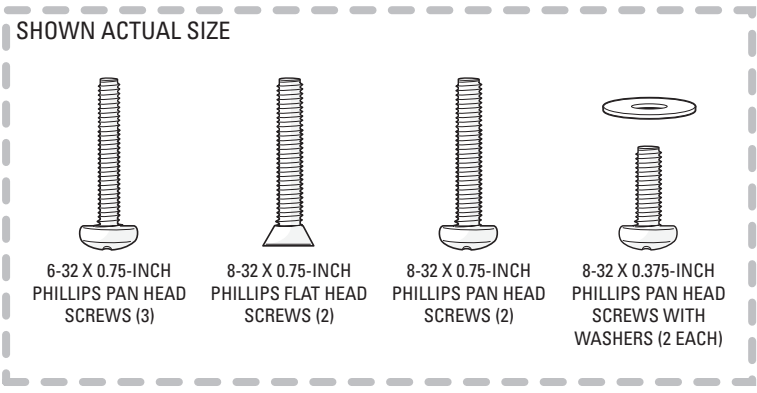
TRIM RING, DOME LINER,  
AND CLEAR BUBBLE  
(1)



BLACK PLUG  
(1)



1/8-INCH HOLLOW  
SCREWDRIVER BIT (1)



6-32 X 0.75-INCH  
PHILLIPS PAN HEAD  
SCREWS (3)

8-32 X 0.75-INCH  
PHILLIPS FLAT HEAD  
SCREWS (2)

8-32 X 0.75-INCH  
PHILLIPS PAN HEAD  
SCREWS (2)

8-32 X 0.375-INCH  
PHILLIPS PAN HEAD  
SCREWS WITH  
WASHERS (2 EACH)

Figure 1. Package Components

# Cover and Back Box Installation

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The ICS110-CW Series Camclosure integrated camera system mounts only to a surface. It can be wired through the cover into a surface, electrical box, or plaster ring. You can also wire it through a side conduit.

## UNSHIELDED TWISTED PAIR (UTP) VIDEO

The ICS110-CW Series offers support for unshielded twisted pair (UTP). The UTP video output signal is 1 Vp-p differential into a 100-ohm load. The unit uses active UTP.

At a minimum, UTP requires Cat5, 100-ohm twisted pair cable. The maximum UTP wiring distance is 3,000 ft (914 m).

## BASIC SURFACE INSTALLATION

**NOTE:** You should install the camera module into the back box before installing the back box into the cover. When installing the back box into the cover, rotate the camera module to access the mounting holes. Refer to *Camera Module* on page 14 for more information.

1. Remove the two 8-32 x 0.375-inch Phillips pan head screws and washers to separate the cover from the back box.
2. Using the cover as a template, mark one of the large holes on the mounting surface.
3. Cut out the hole for the power and video wiring.
4. Pull the video and power wires through the hole in the cover.
5. Attach the cover to the mounting surface (hardware not supplied). Use stainless steel hardware when installing the system outdoors.
6. Connect the video cable/wires:

**BNC:** Connect the BNC connector from the unit to a mating BNC connector.

**Twisted Pair (UTP):** Blue wire = Video +  
Gray wire = Video -

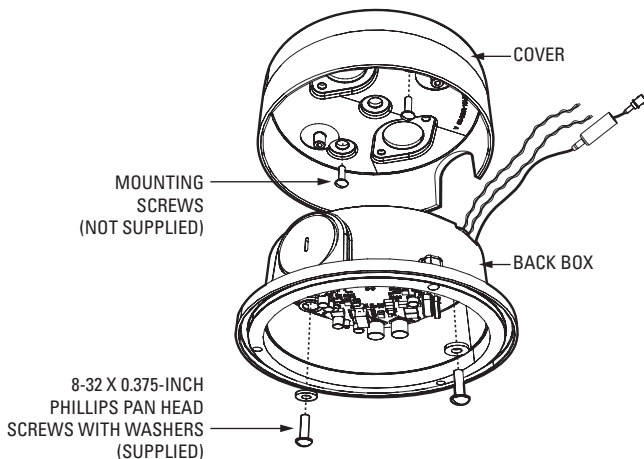
7. Connect the power wires.

Voltage	Red Wire	Black Wire
12 VDC	+	Ground
24 VAC	~	~

**AC operation only:** If you are wiring more than one Camclosure integrated camera system to the same transformer, connect one side of the transformer to the red wire on all units, and connect the other side of the transformer to the black wire on all units. Failure to connect all of the units the same way will cause the cameras to be out of phase with each other and may produce a vertical roll when switching between cameras.



8. Reinstall the back box inside the cover. For vandal-resistant installations, rotate the back box to position the conduit plug opposite the notch on the side of the cover. Use the two 8-32 x 0.375-inch Phillips pan head screws and washers (removed earlier) to secure the back box to the cover.



**Figure 2.** Basic Surface Installation

## 4S ELECTRICAL BOX INSTALLATION

**NOTE:** You should install the camera module into the back box before installing the back box into the cover. When installing the back box into the cover, rotate the camera module to access the mounting holes. Refer to *Camera Module* for more information.

1. Attach an ICS110-AP adapter plate (not supplied) to a 4S box. Use two 8-32 x 0.75-inch Phillips flat head screws (supplied with both the ICS110 and the adapter plate).
2. Remove the two 8-32 x 0.375-inch Phillips pan head screws and washers to separate the cover from the back box.
3. Pull the video and power wires into the cover.
4. Attach the cover to the adapter plate with up to four 8-32 x 0.375-inch Phillips pan head screws (supplied with the adapter plate). Use stainless steel hardware when installing the system outdoors.
5. Connect the video cable/wires:

**BNC:** Connect the BNC connector from the unit to a mating BNC connector.

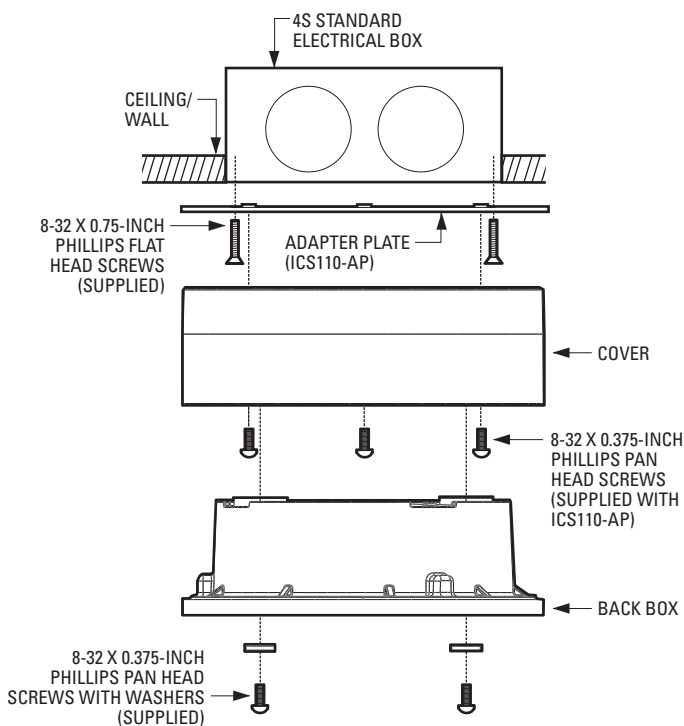
**Twisted Pair (UTP):** Blue wire = Video +  
Gray wire = Video -

- Connect the power wires.

Voltage	Red Wire	Black Wire
12 VDC	+	Ground
24 VAC	~	~

**AC operation only:** If you are wiring more than one Camclosure integrated camera system to the same transformer, connect one side of the transformer to the red wire on all units, and connect the other side of the transformer to the black wire on all units. Failure to connect all of the units the same way will cause the cameras to be out of phase with each other and may produce a vertical roll when switching between cameras.

- Reinstall the back box inside the cover. For vandal-resistant installations, rotate the back box to position the conduit plug opposite the notch on the side of the cover. Use the two 8-32 x 0.375-inch Phillips pan head screws and washers (removed earlier) to secure the back box to the cover.



**Figure 3.** 4S Electrical Box Installation

## 404 PLASTER RING INSTALLATION

**NOTE:** You should install the camera module into the back box before installing the back box into the cover. When installing the back box into the cover, rotate the camera module to access the mounting holes. Refer to *Camera Module* on page 14 for more information.

1. Remove the two 8-32 x 0.375-inch Phillips pan head screws and washers to separate the cover from the back box.
2. Pull video and power wires into the cover. Use up to three supplied 6-32 x 0.75-inch Phillips pan head screws or two supplied 8-32 x 0.75-inch Phillips pan head screws to attach the cover to an installed 404 plaster ring. Use stainless steel hardware when installing the system outdoors.
3. Connect the video cable/wires:

**BNC:** Connect the BNC connector from the unit to a mating BNC connector.

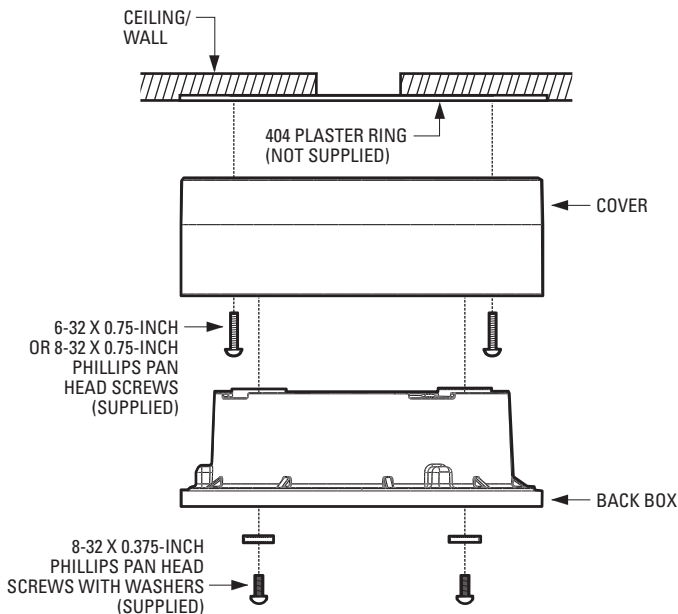
**Twisted Pair (UTP):** Blue wire = Video +  
Gray wire = Video -

4. Connect the power wires.

Voltage	Red Wire	Black Wire
12 VDC	+	Ground
24 VAC	~	~

**AC operation only:** If you are wiring more than one Camclosure integrated camera system to the same transformer, connect one side of the transformer to the red wire on all units, and connect the other side of the transformer to the black wire on all units. Failure to connect all of the units the same way will cause the cameras to be out of phase with each other and may produce a vertical roll when switching between cameras.

- Reinstall the back box inside the cover. For vandal-resistant installations, rotate the back box to position the conduit plug opposite the notch on the side of the cover. Use the two 8-32 x 0.375-inch Phillips pan head screws and washers (removed earlier) to secure the back box to the cover.



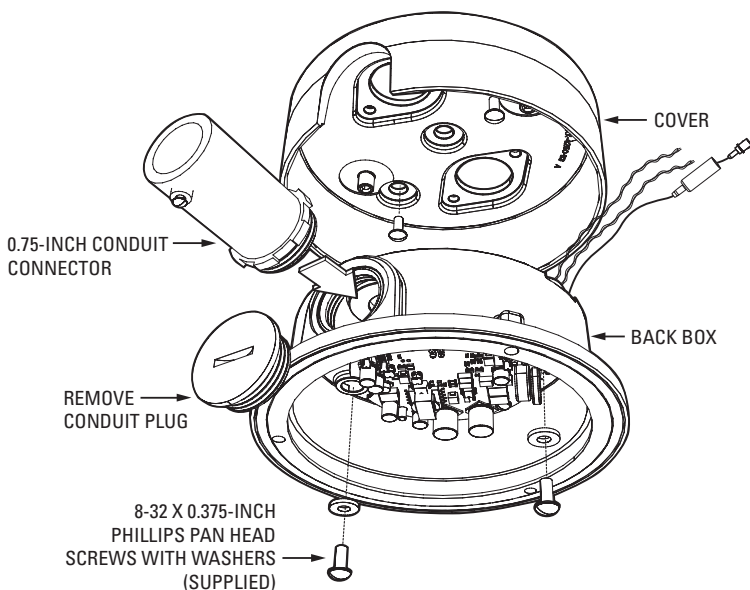
**Figure 4.** 404 Plaster Ring Installation

## SIDE CONDUIT INSTALLATION

**NOTE:** You should install the camera module into the back box before installing the back box into the cover. When installing the back box into the cover, rotate the camera module to access the mounting holes. Refer to *Camera Module* on page 14 for more information.

- Remove the two 8-32 x 0.375-inch Phillips pan head screws and washers to separate the cover from the back box.
- Attach the cover to the mounting surface (hardware not supplied). Use stainless steel hardware when installing the system outdoors.
- Remove the conduit plug from the side of the back box.
- Use a blunt tool to pull the wires and plug, located on the base of the back box, into the back box.
- Insert the black plug (supplied) into the hole in the base of the back box.
- Reinstall the back box inside the cover. Line up the conduit plug with the notch on the side of the cover. Use the two 8-32 x 0.375-inch Phillips pan head screws and washers (removed earlier) to secure the back box to the cover.

7. Install a 0.75-inch (1.91 cm) threaded conduit connector (not supplied) into the conduit hole in the back box.



**Figure 5. Side Conduit Installation**

8. Connect the video cable/wires:

**BNC:** Connect the BNC connector from the unit to a mating BNC connector.

**Twisted Pair (UTP):** Blue wire = Video +  
Gray wire = Video -

9. Connect the power wires.

Voltage	Red Wire	Black Wire
12 VDC	+	Ground
24 VAC	~	~

**AC operation only:** If you are wiring more than one Camclosure integrated camera system to the same transformer, connect one side of the transformer to the red wire on all units, and connect the other side of the transformer to the black wire on all units. Failure to connect all of the units the same way will cause the cameras to be out of phase with each other and may produce a vertical roll when switching between cameras.

# Camera Module

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The ICS110-CW Series Camclosure camera module includes the camera, camera bracket, and heater board. To perform most camera adjustments, you must remove the module from the back box.

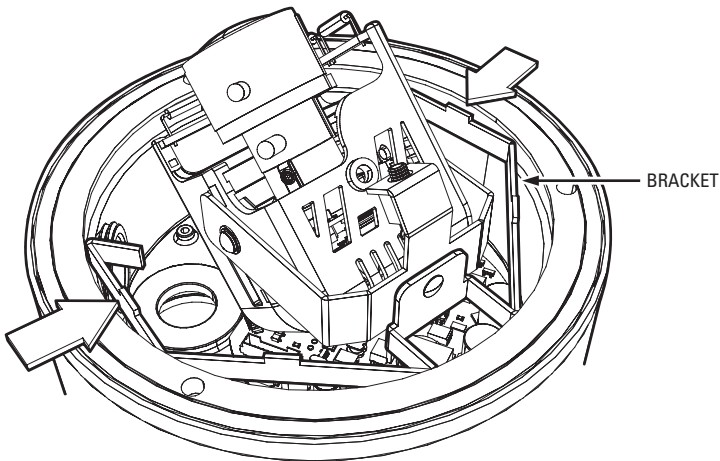
Use the following instructions to remove and reinstall the camera module.

**⚠ WARNING:** Heater elements could be hot! When camera power is on, use caution when adjusting the camera. This applies to all models.

## MODULE REMOVAL

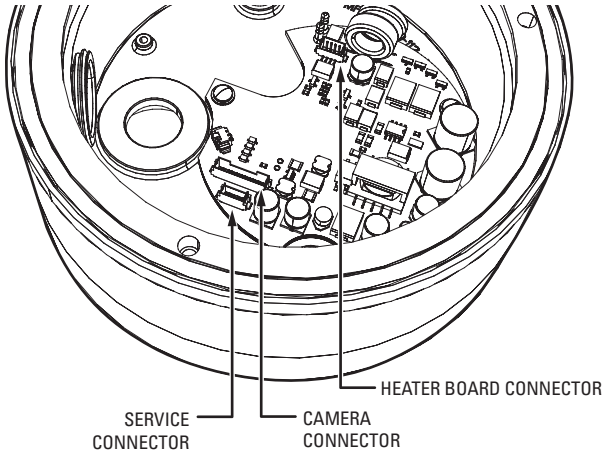
To remove the camera module from the back box:

1. Gently squeeze the bracket and pull the module out of the back box (refer to Figure 6).



**Figure 6.** Camera Module Bracket

2. Unplug the camera (10-pin), heater board (four-pin), and service (three-pin) connectors from the back box (refer to Figure 7).



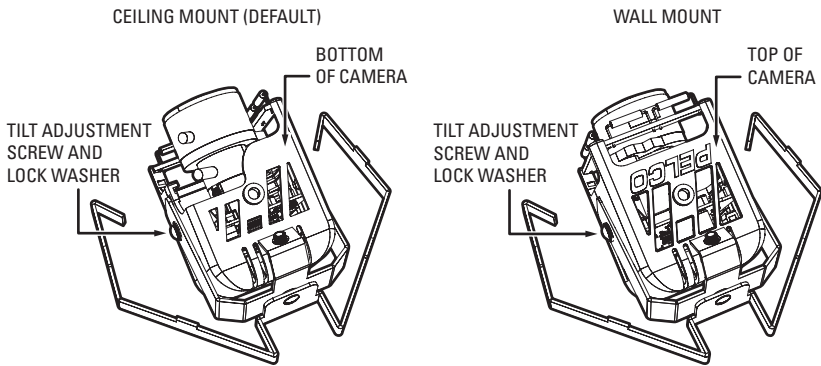
**Figure 7.** Back Box Connectors

## CAMERA ORIENTATION

At the factory, the camera module is configured for ceiling mounting. For wall mounting, you must change the camera orientation or the video image will be upside down.

To change the camera orientation (refer to Figure 8):

1. Remove the camera module from the back box if necessary.
2. Remove the tilt adjustment screw and lock washer from each side of the camera.
3. Carefully rotate the camera one half turn. Make sure the wiring harness does not bind.
4. Reinstall the tilt adjustment screw and lock washer on each side of the camera.
5. Verify the camera orientation.



**Figure 8.** Camera Orientation

## MODULE INSTALLATION

To install the camera module into the back box:

1. Plug the camera (10-pin), heater board (four-pin), and service (three-pin) connectors into the back box (refer to Figure 7 on page 15).
2. Make sure the tabs on the camera bracket and the service connector are pointing out of the enclosure, away from the ceiling or wall.
3. Gently squeeze the bracket, place it against the groove inside back box, and gently release (refer to Figure 6 on page 14).



# Camera Adjustments

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To perform the following camera adjustments, make sure to plug in the camera and service connectors. You may have to remove the camera module from the back box.

Connect a monitor. Then turn on power to the camera and monitor. To use the service connector, refer to *Service Connector* on page 22.

To adjust the DIP switches or the vertical phase, you will need a miniature trimpot adjustment tool with a 0.05-inch (1.27 mm) blade. Suggested tools include a miniature flat-tip screwdriver, a Philmore trimpot tool (#63-6808), and the Philmore 10-piece tool set (#63-910).

After you have adjusted the unit, reinstall the camera module into the back box, and install the trim ring, bubble, and dome liner (if necessary).

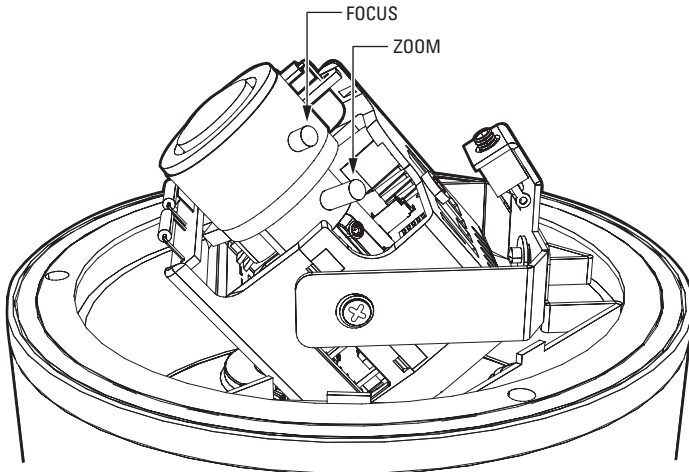
## NOTES:

- The electronics of the ICS110-CW automatically adjust the camera to the auto iris. Auto iris level adjustments are not necessary.
- The R7 adjustment is reserved.

## VARIFOCAL LENS ZOOM AND FOCUS ADJUSTMENTS

To adjust the field of view and the focus:

1. Select a field of view by turning the zoom adjustment ring clockwise/counterclockwise (refer to Figure 9).
2. Tighten the zoom locking screw.
3. Adjust the focus by moving the focus locking screw clockwise/counterclockwise.
4. Tighten the focus locking screw.



**Figure 9.** Location of Zoom and Focus Adjustments

# SWITCH SETTINGS

Locate the DIP switch (refer to Figure 10). Then set the switches for your installation.

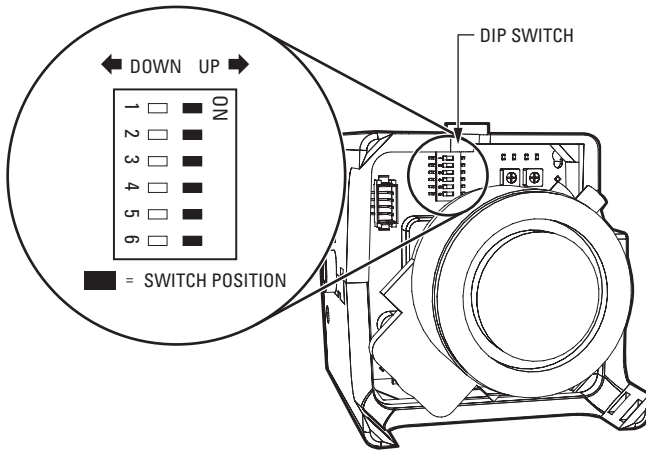


Figure 10. DIP Switch

### SW1: Video Format

Set to ON for NTSC. Set to OFF for PAL. The default is ON.

### SW2: Line Sync

Set to ON to use AC line lock. Set to OFF for internal line sync. The default is ON.

### SW3: Interlaced Scanning/Progressive Scanning

Set to ON to select interlaced scanning. Set to OFF to select progressive scanning. The default is ON.

### SW4: Auto White Balance (AWB)/Auto Tracking White Balance (ATW)

Set to ON to enable ATW. This is the default.

To manually set and lock the white balance (AWB), power up the unit. Then place a white background in front of the lens and turn SW4 to OFF.

### SW5/SW6: Profile

Select the preset profile that best matches your installation:

Profile	Minimum Illumination	SW5	SW6
General (default)	6.0 lux	ON	ON
Extended shutter	0.5 lux (15 fps)	OFF	ON
Extended dynamic range	3.0 lux	ON	OFF
Fluorescent	3.0 lux	OFF	OFF

**General (default):** Use for most installations. This profile provides very good general image quality.

**Extended shutter:** Use for installation that are mostly low light.

**Extended dynamic range:** Use for extremely high dynamic installations, for example, doorways, entrances, and exits. This profile offers the maximum wide dynamic range.

**Fluorescent:** Use for any installation with flickering lighting of any kind.

**NOTE:** If you select the Fluorescent profile, you should enable AC line lock for best results.

## VERTICAL PHASE ADJUSTMENT (24 VAC OPERATION ONLY)

When using more than one camera power supply, a brief vertical roll may occur on the monitor when switching from one camera to another.

To eliminate vertical roll, reverse the 24 VAC connections on one camera. If both cameras are connected to the same transformer, this should solve the problem. If the problem still exists, adjust the phase control by synchronizing, or line-locking, the cameras to one another.

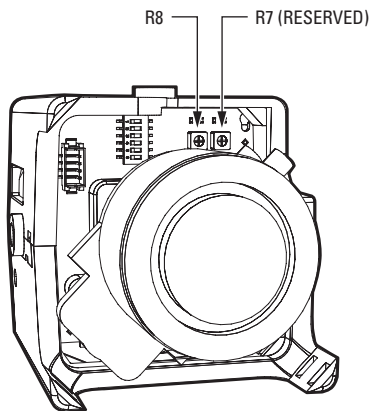
### ADJUSTING THE VERTICAL PHASE

You may need two people when synchronizing the cameras: one at the camera, the other at the monitor to observe the vertical roll and the effect of any camera adjustments.

To synchronize the cameras:

1. Choose a reference camera to which all other cameras will be phased.
2. Select the camera to synchronize. Use the phase adjustment control (R8) to synchronize the camera to the reference camera (refer to Figure 11). Turn R8 clockwise to increase vertical phase; turn R8 counterclockwise to decrease vertical phase.
3. Each time an adjustment is made, switch back and forth between the camera you are adjusting and the reference camera. Repeat this process as many times as necessary until the roll between the cameras is no longer noticeable.
4. Adjust the phase of all other cameras by repeating steps 2 through 3. Always adjust to the reference camera selected in step 1.

**NOTE:** The preferred method for camera phase adjustment is to use a dual trace oscilloscope to align the vertical sync pulses of the reference camera to the selected camera(s).



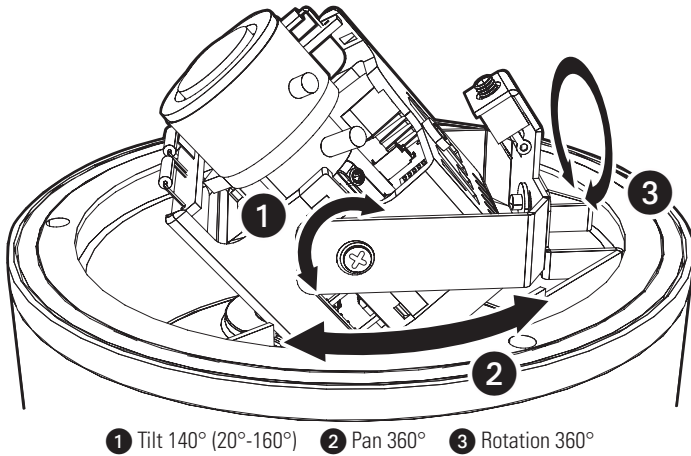
**Figure 11.** Vertical Phase Adjustment

# Camera Positioning

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Manually rotate and tilt the camera module to position the camera. Then tighten the tilt screws (axis 1 in Figure 12).

**NOTE:** Do not over-rotate the module. Excessively turning the module in one direction could result in damage to the wiring.

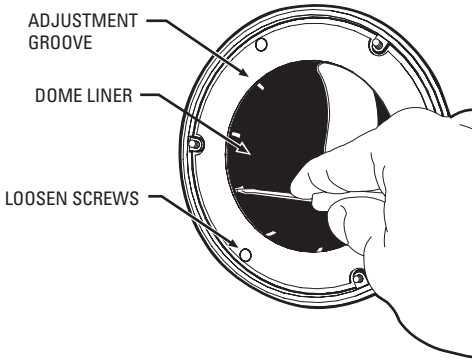


**Figure 12.** Positioning the Camera

# Install Dome and Trim Ring

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1. Adjust the dome liner if installed (refer to Figure 13):
  - a. Align the screw holes in the trim ring with those in the back box to identify the proper dome liner position.
  - b. Loosen the three Phillips screws located in the trim ring.
  - c. Insert the blade of a standard screwdriver in one of the adjustment grooves. Rotate the dome liner to position the viewing window over the camera lens.
  - d. Tighten the three Phillips screws to lock the dome liner in place.



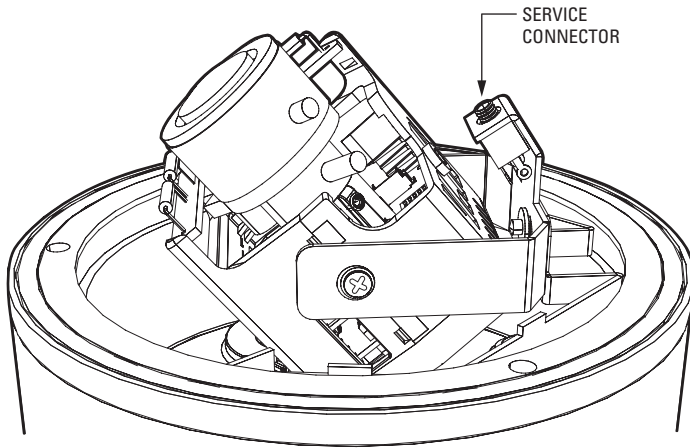
**Figure 13.** Dome Liner Adjustment

2. Align the screw holes in the trim ring with those in the back box.
3. Tighten the tamper-resistant screws through the trim ring into the back box. Use the supplied 1/8-inch hollow screwdriver bit.

# Service Connector

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The ICS110-CW Series Camclosure integrated camera system includes a service connector that outputs camera video. Use it at the installation site to set up the field of view and focus the camera.



**Figure 14.** Service Connector

Pelco offers two optional items that plug directly into the service connector. Before using either option, you must loosen the tamper-resistant screws to remove the trim ring from the back box. Use the supplied 1/8-inch hollow screwdriver bit.

The CST150 has a 3-foot (0.9 m) cable and microdisplay for viewing camera video. Plug it into the service connector and view the video.

**NOTE:** The three buttons on the CST150 are not used with the ICS110-CW.

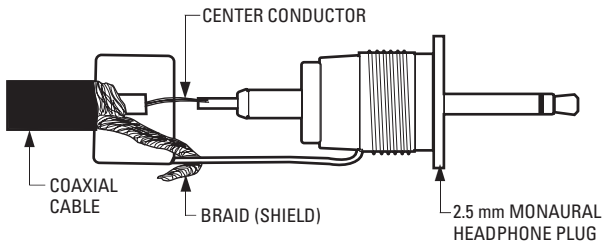
The ICS090-SC has a 4-foot (1.2 m) cable with a service connector and a BNC connector. Plug the service connector into the unit. Then connect the other end to any standard BNC (VIDEO IN) connector on a monitor.

To assemble a longer service cable for the Camclosure integrated camera system, purchase the following from a local electronics supply store:

- 1 2.5 mm monaural headphone plug
- 1 CPM 88 miniature coaxial connector
- 1 RG174/U coaxial cable

To assemble the cable:

1. Attach the CPM 88 miniature coaxial connector to one end of the cable. Follow the directions supplied with the miniature coaxial connector.
2. Attach the 2.5 mm monaural plug to the other end of the coaxial cable (refer to Figure 15):
  - a. Remove the support sleeve from the plug.
  - b. Slip the support sleeve over the end of the cable.
  - c. Prepare the cable.
  - d. Solder the center conductor of the cable to the center pin of the plug.
  - e. Thread the braid of the cable through the hole in the crimp pin.
  - f. Solder the braid to the top of the crimp pin.
  - g. Crimp the end of the crimp pin around the cable.
  - h. Reassemble the support sleeve and the plug.



**Figure 15.** Attaching the 2.5 mm Monaural Headphone Plug

# Specifications

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## CAMERA

Imaging Device	1/3-inch imager
Dynamic Range	102 dB typical/120 dB maximum
Picture Elements	Sensor resolution: 742 (H) x 552 (V)
Signal System	NTSC or PAL
Scanning System	2:1 interlace/progressive
Synchronization	Internal/AC line lock
Horizontal Resolution	More than 504 TV lines
Iris Control	Auto
Electronic Shutter Range	Auto (1/15 - 1/22,000)
Auto Iris Lens Type	DC-drive
Minimum Illumination	0.5 lux, F1.2, 40 IRE, AGC on, 75% scene reflectance (extended shutter mode, 15 fps)
Signal-to-Noise Ratio	>53 dB
Vertical Phase	Adjustable $\pm 200^\circ$
Gain Control	Auto (36 dB maximum)
Backlight Compensation	Auto
Signal Processing	Digital Signal Processing (DSP)
Video Output	Composite: 1 Vp-p, 75 ohms UTP: Active 1 Vp-p, 100 ohms
Auto White Balance	Auto or manual (switch selectable); 2700°K to 7500°K

## LENS

Type	Varifocal
Format Size	1/3-inch
Focal Length	3 ~ 9 mm
Zoom Ratio	3X
Relative Aperture (F)	1.2 ~ 2.1
Operation	
Iris	Auto (DC-drive)
Focus	Manual
Zoom	Manual
Angle of View*	
Diagonal	118.7° to 41.5°
Horizontal	92.8° to 33.3°
Vertical	68.8° to 25°
Minimum Object Distance	1.64 ft (0.5 m)
Back Focal Length	6.1 ~ 12 mm

\*Focal length specifications presume a 10% horizontal and 4% vertical monitor overscan.



## BACKBOX

### Electrical

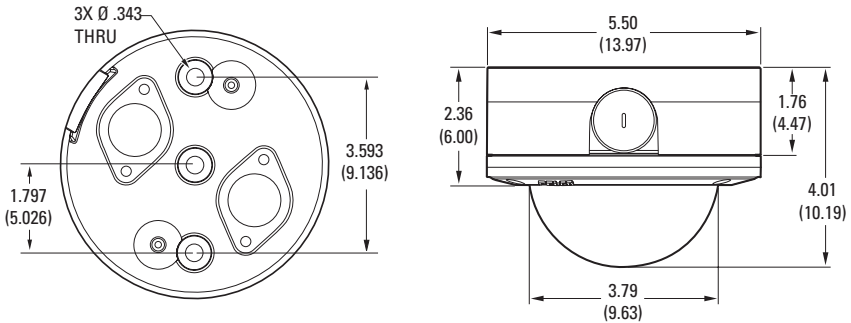
Input Voltage**	12 VDC or 24 VAC ( $\pm 10\%$ ), autosensing
Power Consumption	10 watts or less
Video Connector	Composite: BNC UTP: Twisted pair

### General

Pan/Tilt Adjustment	Manual
Pan	360°
Tilt	80° (20° to 100° range)
Rotation	360°
Construction	Aluminum with steel camera mounting bracket and polycarbonate dome
Finish	Gray polyester powder coat
Environment	Low temperature, indoor/outdoor
Cable Entry	3/4-inch (1.91 cm) conduit fitting and 3/4-inch (1.91 cm) opening for NPT threaded pipe
Operating Temperature	-50° to 122°F (-46° to 50°C) De-ices to 25°F (-4°C)
Unit Weight	2.2 lb (1.0 kg)

\*\*24 VAC power is recommended when installing any Camclosure Integrated Camera System under fluorescent lighting conditions.

*(Design and product specifications subject to change without notice.)*



NOTE: VALUES IN PARENTHESES ARE CENTIMETERS;  
ALL OTHERS ARE IN INCHES.



# PRODUCT WARRANTY AND RETURN INFORMATION

## WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship **for a period of one year** after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on FR/FT/FS Series fiber optic products and TW3000 Series unshielded twisted pair transmission products.
- Three years on Spectra® IV products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on Camclosure® and fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Three years on PMCL200/300/400 Series LCD monitors.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
- Two years on Spectra III™, Esprit®, ExSite™, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit and WW5700 Series window wiper (excluding wiper blades).
- Two years (except lamp and color wheel) on Digital Light Processing (DLP®) displays. The lamp and color wheel will be covered for a period of 90 days. The air filter is not covered under warranty.
- Eighteen months on DX Series digital video recorders, NVR300 Series network video recorders, and Endura™ Series distributed network-based video products.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem

If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

## RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

*If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:*

Service Department  
Pelco  
3500 Pelco Way  
Clovis, CA 93612-5699

*If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:*

If the goods are to be sent by a COURIER SERVICE, send the goods to:

Pelco  
3500 Pelco Way  
Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:

Pelco c/o Expeditors  
473 Eccles Avenue  
South San Francisco, CA 94080 USA  
Phone: 650-737-1700  
Fax: 650-737-0933

## REVISION HISTORY

Manual #	Date	Comments
C3406M	4/06	Original version.
C3406M-A	6/06	Added note to install camera module into back box before installation (ECO 06-13656).
C3406M-B	6/06	Updated DIP switch profile settings.
C3406M-C	7/06	Removed auto iris adjustment procedure.
C3406M-D	1/07	Updated figure 11. Described unused auto iris adjustment.



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